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EXAMINER	
YANG, CLARA I	

ART UNIT	PAPER NUMBER
2612	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/826,541	TRIMBLE ET AL.	
	Examiner	Art Unit	
	Clara Yang	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed on 24 January 2005 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because document number 5005/0004962 is invalid. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Priority

2. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

The later-filed application must be an application for a patent for an invention that is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application, Application No. 10/279,405 and 09/679,841, fail to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application as explained below:

- Claim 3: An activation signal including the target address codes and being transmitted at 315 MHz.

- Claims 13 and 14: A memory storage device that stores a preselected sound sample that is generated by the remote locator unit upon receipt of the target address code.

- Claims 15 and 16: At least one of the remote locator units including an activation switch, wherein the remote locator's microprocessor activates an indicator device upon receiving the target address code or upon depression of the activation switch.

- Claim 17: An activation signal comprising a data packet.

- Claims 18-27: An adapter being positioned between a portable work tool powered by a removable battery pack and the associated battery pack and including a remote locator unit.

- Claims 28-36: A transmitter unit having a plurality of object locating switches and a master switch associated with a master code.

These applications (Application No. 10/279,405 and 09/679,841) all fail to provide adequate support claims 3 and 13-36 of the current specification as filed. Consequently, in the prosecution of this application, the priority date is established to be the filing date of the application (i.e., 16 April 2004).

Claim Objections

3. Claims 1, 13, 14, and 28 are objected to because of the following informalities:

- Claim 1: The claim limitations employ the phrases "for producing a plurality of uniquely coded activation signals," "for controlling the transmission of the plurality of coded RF activation signals," "for storing a plurality of target address codes," "for receiving the activation signals including the target address codes transmitted by the RF transmitter," and "for storing a programmable target address". It has been held that the recitation that an element is "for" performing a function is not a positive limitation but only requires the ability to so perform.

- Claims 13 and 14: The claim limitations employ the phrase "for storing a preselected sound sample such that the remote locator unit can generate the sound sample upon receipt of the target address code". It has been held that the recitation that an element is "for" performing a function is not a positive limitation but only requires the ability to so perform.

- Claim 28: The claim limitations employ the phrases "for producing a plurality of uniquely coded activation signals," "for controlling the transmission of the plurality of coded RF activation signals," "for storing a plurality of target address codes and a master address code," "for receiving the activation signals including the target address codes or the master code transmitted by the RF transmitter," and "for storing a programmable target address and a programmable master address". It has been held that the recitation that an element is "for" performing a function is not a positive limitation but only requires the ability to so perform.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Lander (US 4,476,469).

Referring to claim 1, Lander's locating system, as shown in Fig. 9, comprises (1) transmitter unit 100′ and (b) a plurality of receiver units 120′ (i.e., remote locator units) (see Col. 6, lines 9-17). Per Lander, transmitter unit 100′, as shown in Fig. 9, comprises (1) a plurality of push switches 102′ (see Col. 5, lines 21-45 and Col. 6, lines 12-17); (2) radio frequency (RF) transmitter 110′ (see Col. 4, lines 20-22; Col. 5, lines 42-45 and 55-67; and Col. 6, lines 9-12); and (3) encoder 108′ (i.e., microprocessor), which is positioned between push switches 102′ and transmitter 110′, that controls the transmission of the plurality of coded RF activation signals and must have a memory storing a plurality of target address codes, each target address code being associated with a receiver unit 120, whereupon depression of a push switch 102′ causes RF transmitter 110′s to transmit a signal including the target address code assigned to the

depressed push switch 102' (see Col. 4, lines 40-53; Col. 5, lines 21-45 and 55-67; and Col. 6, lines 12-17). Regarding Lander's receiver units 120, each receiver unit 120' comprises (1) RF receiver 122' (see Col. 4, lines 39-48; Col. 5, lines 67-68; and Col. 6, lines 1-17); and (2) decoder 120' (i.e., microprocessor) including a memory that stores a programmable target address, wherein decoder 120' activates pulser 128' to energize beeper 130' and lamp 132' upon RF receiver 122' receiving the target address code corresponding to the stored target address code (see Col. 4, lines 39-48; Col. 5, lines 21-42 and 67-68; and Col. 6, lines 1-17).

Regarding claim 2, Lander teaches that transmitter unit 100' transmits each target address code via RF transmitter 110' using a pulse-position modulated RF carrier wave of 10-150 KHz (see Col. 5, lines 58-67 and Col. 6, lines 9-17). In other words, Lander's activation signal is transmitted by RF transmitter 110' at a single frequency.

Regarding claim 4, Lander discloses that receiver unit 120' generates an audible signal via pulser 128' and bleeper 130' (see Col. 3, lines 25-30; Col. 4, lines 40-48; Col. 5, lines 67-68; and Col. 6, lines 1-8).

Regarding claim 5, Lander discloses that receiver unit 120' generates a visible signal via pulser 128' and lamp 132' (see Col. 3, lines 25-30; Col. 4, lines 40-48; Col. 5, lines 67-68; and Col. 6, lines 1-8).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 3 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) as applied to claim 2 above, and further in view of Bender (US 6,147,602).

Regarding claims 3 and 6-9, as called for in claim 8, Lander teaches attaching receiver unit 120′ to a tool, which is understood to be a power tool (see Col. 1, lines 53-61). And as called for in claim 9, Lander teaches attaching receiver unit 120′ to keys (see Col. 1, lines 15-18). Lander, however, fails to teach that transmitter unit 100′ transmits a plurality of coded address signals at 315 MHz (as called for in claim 3), that receiver unit 120′ is incorporated into an object and cannot be separated therefrom (as called for in claim 6), such objects being a piece of luggage (as called for in claim 7), a tool (as called for in claim 8), and a key (as called for in claim 9).

In an analogous art, Bender's luggage locator system comprises (a) transmitter unit 30 (see Fig. 4) and (b) a receiver unit (see Col. 3, lines 19-26). As shown in Figs. 4 and 5, Bender's transmitter unit 30 comprises (1) activation button 31/pushbutton switch S2 (i.e., an object locating switch) (see Col. 5, lines 4-7); (2) transmitter circuitry that produces an encoded RF signal (see Col. 4, lines 65-67 and Col. 5, lines 1-9 and 43-47); (3) a memory formed by an array

of dip switches S1 that stores a unique binary number (i.e., target address) to be coded with a transmitted signal (see Col. 5, lines 47-52); and (4) a digital oscillator unit that controls the transmission of an encoded RF signal and is connected to the array of dip switches S1 such that the depression of activation button 31/pushbutton switch S2 causes the transmitter circuitry to transmit an encoded RF signal including the unique binary number (see Col. 3, lines 39-42; Col. 5, lines 4-7 and 43-59). Bender's receiver unit, as shown in Figs. 2, 3, and 6A, comprises (1) antenna ANT1, a signal passing circuit, and an analog-to-digital conversion circuit forming an RF receiver that receives transmitter unit 30's encoded RF signal (see Col. 5, lines 14-17 and 60-64); and (2) digital decoder unit DEC coupled to the receiver and an array of dip switches S1, which is a memory that stores a programmable unique binary number, and activates a light emitting diode LED and a sound generator circuit when the RF receiver receives a binary number that corresponds to the stored binary number (see Col. 3, lines 39-46; Col. 5, lines 14-17, 28-42, and 60-67; and Col. 6, lines 1-16). As called for in claim 3, Bender discloses that transmitter unit 30's RF circuit generates an RF signal at 315 MHz and at a power level sufficient for locating an object within 50-100 feet (see Col. 5, lines 54-57). As called for in claims 6 and 7, Bender further discloses directly incorporating the receiver unit into an object, particularly a piece of luggage (see Col. 2, lines 13-17 and 54-57 and Col. 3, lines 19-26). In addition, Bender suggests incorporating the receiving unit into other objects (see Col. 1, lines 7-8 and 64-67; Col. 2, line 1; and Col. 6, lines 17-21).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lander's locator system as taught by Bender because (1) transmitter unit 100' transmitting a plurality of coded address signals at 315 MHz has a communication range of 50-100 feet (see Bender, Col. 5, lines 54-57), which is greater than the

communication range provided by Lander's system, which uses a low frequency (LF) carrier wave of 10-150 KHz (see Lander, lines 7-14 and Col. 7, lines 9-55). In addition, the chances of receiver unit 120' falling off or being accidentally removed from the object to which it is attached are eliminated by directly incorporating receiver unit 120' into an object and cannot be separated therefrom (as called for in claim 6), such objects being a piece of luggage (as called for in claim 7), a power tool (as called for in claim 8), and a key (as called for in claim 9), thereby improving the effectiveness of the system.

9. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) as applied to claim 5 above, and further in view of Calhoun et al. (US 6,850,151).

Regarding claims 15 and 16, Lander's receiver unit 120's lacks an activation switch that causes decoder 126' to activate lamp 132' upon depression of the activation switch (as called for in claim 15), wherein lamp 132' is activated for a predetermined period of time upon depression of the activation switch (as called for claim 16).

In analogous art, Calhoun's locating system, as shown in Fig. 1, comprises (a) transmitter unit 12 held by user 3 and (b) receiver unit 13 (see Col. 6, lines 9-22). As shown in Figs. 7, Calhoun teaches that transmitter unit 12 includes (1) mode button 32, set button 34, "on command" button 27 forming a plurality of object locating switches (see Col. 6, lines 41-46 and 51-53; Col. 7, lines 7-10; and Col. 9, lines 60-65); (2) transmitter 25 that produces a plurality of activation signals (see Col. 6, lines 33-35); and (3) microprocessor 28, which is positioned between the object locating switches and transmitter 25, that controls the transmission of the activation signals (see Col. 6, lines 33-53), wherein transmitter 25 transmits an activation signal upon depression of the "on command" button (see Col. 6, lines 51-53 and Col. 9, lines 60-65). As shown in Figs. 8 and 9, Calhoun teaches that receiver unit 13 includes (1) receiver 26 that

receives an activation signal transmitted by transmitter unit 12 (see Col. 7, lines 34-38); and (2) microprocessor 38 coupled to receiver 26 and having a memory that stores a programmable address (see Col. 9, lines 4-19), wherein microprocessor 38 activates visible alert 50 and audible alert 60 upon receiver 26 receiving a valid activation signal (see Col. 9, lines 35-43 and 60-65). As called for in claim 15, Calhoun teaches that receiver unit 13 includes set button 46, which causes receiver unit 13 to enter a "learn" mode and visible alert 50 to flash when set button 46 is depressed (see Col. 9, lines 2-4); thus set button 46 is understood to be an activation button. As called for in claim 16, Calhoun teaches that visible alert 50 is activated during receiver unit 13's "learn" mode (i.e., activated for a predetermined period) of time upon depression of set button 46 (see Col. 9, lines 2-10).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lander's locator system as taught by Calhoun because a receiver unit 120 having activation switch that causes receiver unit 120 to enter a "learn" mode and decoder 126' to activate lamp 132' upon depression of the activation switch (as called for in claim 15), wherein lamp 132' is activated for a predetermined period of time upon depression of the activation switch (as called for claim 16), enables a user to program receiver unit 120' and determine when receiver unit 120's has learned its unique code.

10. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) as applied to claim 1 above, and further in view of Reber et al. (US 5,950,632).

Regarding claims 10 and 11, though Lander suggests attaching receiver unit 120' to domestic articles, such as spectacles, keys, pets, pens, tools, etc. (see Col. 1, lines 15-18 and 53-61), Lander fails to expressly teach securing receiver unit 120' to a medication container (as

called for in claim 10) such that receiver unit 120' is formed as a portion of the medication container (as called for in claim 11).

In an analogous art, Reber teaches a medical communication apparatus, as shown in Fig. 3, comprising (a) communication apparatus 100 (i.e., a transmitter unit) and (b) medicine containers 102, 104, and 106 (see Col. 7, lines 60-63). As shown in Fig. 2, communication apparatus 50 comprises (1) at least one input device 70 (i.e., object locating switch) (see Col. 5, lines 55-57 and Col. 8, lines 50-54); (2) RF transmitter 72 that transmits a plurality of uniquely coded signals 35 (see Col. 3, lines 2-8; Col. 5, lines 41-44; Col. 6, lines 23-28; and Col. 8, lines 29-41); (3) processor 90 that is positioned between at least one input device 70 and transmitter 72, controls transmitter 72, and is connected to storage medium 66 that stores address codes for medicine containers 102, 104, and 106, whereupon depression of at least one input device 70 causes transmitter 72 to transmit a signal to a selected medicine container (see Col. 3, lines 2-8; Col. 5, lines 55-57; Col. 6, lines 36-43; and Col. 8, lines 29-41). As shown in Fig. 2, medicine container 52 includes (1) receiver 76 that receives an activation signal 35 including a target address code transmitted by communication apparatus 50 (see Col. 3, lines 2-8; Col. 5, lines 44-59 and Col. 8, lines 29-41); and (b) processor 86 that must have a memory storing an address and that activates indicator 82 upon receiver 76 receiving an address code corresponding to the stored address (see Col. 3, lines 2-8; Col. 5, lines 44-59; Col. 6, lines 29-35; and Col. 8, lines 29-41). As called for in claims 10 and 11, each medicine container has a remote locator unit, formed by receiver 76, transmitter 80, indicator 82, sensor 84, and processor 86, secured to the container (as called for in claim 10), wherein the remote locator unit is formed as a part of the medication container by being mounted in a cap of medicine container 52 (as called for in claim 11) (see Figs. 2 and 3 and Col. 5, lines 60-65).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lander's locator system as taught by Reber because securing receiver unit 120' to a medication container 52 (as called for in claim 10) such that receiver unit 120' is formed as a portion of medication container 52's cap (as called for in claim 11) enables a user to locate medication container 52 at times when the medicine is to be taken (see Reber, Col. 3, lines 2-8 and Col. 8, lines 37-41).

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Reber et al. (US 5,950,632) as applied to claim 10 above, and further in view of Hedrick (US 5,680,105).

Regarding claim 12, Lander and Reber fail to teach that receiver unit 120' includes a reset switch, wherein the depression of the reset switch terminates the activation of bleeper 130' and/or lamp 32'.

In an analogous art, Hedrick teaches a locating system, as shown in Fig. 1, comprising (a) activation switches 22 and master activation switch 76 forming a transmitter unit and (b) a plurality of response units 14 (i.e., remote locator units) (see Col. 2, lines 18-24 and Col. 3, lines 14-27). As shown in Fig. 4, Hedrick's transmitter unit comprises (1) a plurality of activation switches 22 (i.e., object locating switches) (see Col. 3, lines 18-20); (2) RF transmitter 70 that produces a plurality of uniquely coded activation signals (see Col. 3, lines 15-20); and (3) codes 72 stored in a memory, each code 72 associated with an activation switch 22, whereupon depression of one of the activation switches 32 causes RF transmitter 70 to transmit an activation signal including the target address code assigned to the depressed activation switch 22 (see Col. 3, lines 14-27). As shown in Fig. 3, Hedrick's response unit 14 comprises (1) RF receiver 62 that receives the activation signals transmitted by RF transmitter 70 (see Col. 3, lines

3-7); and (2) a microprocessor connected to code program 64 (i.e., a memory) that activates beeper 66 upon RF receiver 62 receiving the code corresponding to the one in code program 64 (see Col. 3, lines 7-13). As called for in claim 12, response unit 14 also includes reset button 20, wherein depression of reset button 20 terminates the activation of beeper 66 (see Col. 3, lines 10-13).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lander and Reber's locator system as taught by Hedrick because a receiver unit 120' that includes a reset switch, wherein the depression of the reset switch terminates the activation of bleeper 130' and/or lamp 32', reduces power consumption of the receiver unit's battery (see Lander, Col. 4, lines 31-38).

12. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Reber et al. (US 5,950,632) as applied to claim 10 above, and further in view of Winder et al. (US 6,133,832).

Regarding claim 13, Lander and Reber's receiver unit 120' lacks a memory device that stores a preselected sound sample that is generated by receiver unit 120' upon receipt of the target address code.

In an analogous art, as shown in Fig. 1, Winder's article location system comprises (a) transmitter unit 16 and (b) a plurality of receiver tags 12 (see Col. 6, lines 21-27). Winder discloses that transmitter unit 16, as shown in Figs. 2 and 3, includes (1) alphanumeric keypad 26, scroll up button 28, scroll down button 30, and select button 32 (i.e., a plurality of object locating switches) to allow a user to select and activate any of the receiver tags 12 (see Col. 6, lines 46-52); (2) radio transmitter and microprocessor control circuit 22 having an RF transmitter that produces a plurality of uniquely coded activation signals (see Col. 6, lines 46-59); and (3)

radio transmitter and microprocessor control circuit 22 having a microprocessor, which is positioned between the object locating switches and the RF transmitter, that controls the transmission of the plurality of coded RF activation signals and has a memory that stores a plurality of access codes (i.e., target address codes) (see Col. 6, lines 46-59; Col. 7, lines 4-16 and 65-67; and Col. 8, lines 1-3). Winder's receiver tags 12, as shown in Figs. 4 and 5, comprises (1) a radio receiving circuit that receives activation signals transmitted by radio transmitter and microprocessor control circuit 22 (see Col. 7, lines 4-11); and (2) a microprocessor, which is coupled to the radio receiving circuit, that activates tag speaker drive circuit 108 and laser diode drive circuit 110 upon the radio receiving circuit receiving the target address code corresponding to the stored target address code (see Col. 6, lines 56-59 and Col. 7, lines 4-22). Winder's receiver tag 12 also must have a memory that stores a programmable target address code. As called for in claim 13, Winder teaches that receiver tag 12 includes a memory that stores a recorded sound sample provided into receiver tag 12's microphone 82 such that receiver tag 12 generates the recorded sound sample upon receipt of the target address code by the radio receiving circuit (see Col. 6, lines 60-67 and Col. 7, lines 16-22).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lander and Reber's locator system as taught by Winder because a receiver unit 120' having a memory device that stores a preselected sound sample that is generated by receiver unit 120' upon receipt of the target address code enables a user to select a sound sample that is more meaningful or distinguishable than the sound generated by bleeper 130'.

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) as applied to claim 1 above, and further in view of Winder et al. (US 6,133,832).

Regarding claim 14, Lander's receiver unit 120' lacks a memory device that stores a preselected sound sample that is generated by receiver unit 120' upon receipt of the target address code.

In an analogous art, Winder teaches the limitation called for in claim 14 as explained in the previous rejection of claim 13.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lander's locator system as taught by Winder because a receiver unit 120' having a memory device that stores a preselected sound sample that is generated by receiver unit 120' upon receipt of the target address code enables a user to select a sound sample that is more meaningful or distinguishable than the sound generated by bleeper 130'.

14. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) as applied to claim 1 above, and further in view of Holbrook et al. (US 6,674,364).

Regarding claim 17, though Lander teaches that the activation signal is transmitted on a single frequency, Lander is silent on the activation signal including a data packet that contains one of the plurality of target address codes.

In an analogous art, Holbrook, as shown in Fig. 1, teaches a locator system comprising (a) transmitter 10 and (b) a plurality of receivers 20. As shown in Figs. 8A and 8B, Holbrook's transmitter 10 includes (1) switches S1-S12 (i.e., a plurality of object locating switches) (see Col. 7, lines 63-67 and Col. 8, lines 1-16); (2) RF section that produces a plurality of uniquely coded data packets (see Col. 7, lines 33-41); and (3) microcontroller 70 connected between switches S1-S12 and the RF section, wherein microcontroller 70 includes a memory that stores a plurality of address codes, each address code associated with switch S1-S12 such that depression of a switch

S1-S12 causes the RF section to transmit a data packet including the address code associated with the depressed switch S1-S12 (see Col. 7, lines 33-50 and 63-67; Col. 8, lines 1-16; and Col. 9, lines 30-35). Holbrook's receiver 20, as shown in Fig. 9, comprises (1) an RF section that receives data packets from transmitter 10 (see Col. 9, lines 50-54); and (2) microcontroller 78, which is coupled to the RF section, that includes a memory storing an address code, wherein microcontroller 78 activates piezoelectric transducer 80 upon the RF section receiving a data packet having an address code that corresponds to the stored address code (see Col. 9, lines 50-65 and Col. 10, lines 1-4 and 35-38). As called for in claim 17, the activation signal is transmitted at a single frequency of 315 MHz and includes a data packet containing one of the plurality of target address codes (see Col. 7, lines 33-43; Col. 9, lines 30-36 and 50-54; and Col. 10, lines 35-38).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lander's locator system as taught by Holbrook because an activation signal including a data packet that contains one of the plurality of target address codes provides a header that can by used to wake up receiver unit 120' (see Holbrook, Col. 7, lines 41-43), thereby conserving power by enabling receiver unit 120' to wake up only when a valid header is received.

15. Claims 18-20, 24, 25, and 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) as applied to claim 1 above, and further in view of Horiyama et al. (US 6,502,949).

Regarding claims 18-20, 24, 25, and 27, Lander teaches attaching receiver unit 120' to tools (see Col. 1, lines 53-61), which are understood to include power tools. Lander, however, fails to expressly teach (1) a portable work tool powered by a removable battery pack, an

adapter positioned between the portable tool and the associated battery pack, and attaching receiver unit 120' to the adapter, as called for in claim 18; (2) the adapter including a light source, as called for in claim 19; (3) the adapter's light source mounted onto a flexible neck, as called for in claim 20; (4) the adapter including a tool socket that connects the adapter to the tool and a battery socket to receive a removable battery pack, as called for in claim 24; (5) the adapter being integrally formed with the removable battery pack, as called for in claim 25; and (6) the portable tool including an activation trigger that activates the adapter's light source when depressed, as called for in claim 26.

In an analogous art, Horiyama's power tool adapter, as shown in Fig. 7 and called for in claim 18, comprises (a) drill 45 (i.e., a portable work took) powered by battery pack 31 (see Col. 6, lines 61-67) and (b) light adapter 1 positioned between drill 45 and battery pack 31 (see Col. 7, lines 38-47). As called for in claim 19, light adapter 1 includes light 26 (see Col. 5, lines 30-32). As called for in claim 20, light adapter 1's light 26 is mounted onto flexible neck 27 (see Col. 5, lines 30-32). As called for in claim 24, Horiyama teaches that light adapter 1 includes coupling portion 4 (i.e., a socket) that receives drill 45 and coupling portion 5 (i.e., a battery sock) that receives battery pack 31 (see Col. 6, lines 61-67 and Col. 7, lines 1-37). As called for in claim 25, it is understood that when light adapter 1 is connected to battery pack 31, light adapter 1 and battery pack 31 form a unit; thus light adapter 1 is integrally formed with battery pack 31 when they are connected. As called for in claim 27, Horiyama discloses that light adapter 1's light 26 is activated upon activation of drill 45's activation trigger 49 (see Col. 6, lines 34-37 and Col. 8, lines 23-42).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lander's locator system as taught by Horiyama because a

locator system comprising a portable work tool powered by a removable battery pack and an adapter positioned between the portable tool and the associated battery pack, wherein receiver unit 120' is attached to the adapter (as called for in claim 18), enables a user to track any portable work tool that is connected to the adapter attached with a receiver unit 120', thereby eliminating the need to attach receiver unit 120' to every tool and enabling a user to track light adapter 1. In addition an adapter including a light source 26, as called for in claim 19, provides the tool with additional functionality without increasing the tool's manufacturing cost (see Horiyama, Col. 1, lines 43-49) and enables a user to use the tool in poor light conditions. Furthermore, mounting adapter's light source 26 onto flexible neck 27, as called for in claim 20, enables a user to manually adjust the position of light source 26 as needed (see Horiyama, Col. 2, lines 20-24). Additionally, an adapter including a tool socket that connects the adapter to the tool and a battery socket to receive a removable battery pack, as called for in claim 24, such that the adapter is integrally formed with the removable battery pack when connected, as called for in claim 25, avoids design changes of either the battery pack or the tool (see Horiyama, Col. 2, lines 1-3). Finally, a portable tool including an activation trigger that activates the adapter's light source 26 when depressed, as called for in claim 26, saves power and eliminates the need for manually turning on and off light source 26 (see Horiyama, Col. 8, lines 23-35).

16. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Horiyama et al. (US 6,502,949) as applied to claim 18 above, and further in view of Hedrick (US 5,680,105).

Regarding claims 21-22, Lander and Horiyama fail to teach (1) transmitter unit 100' further having a master switch and encoder 108' (i.e., a microprocessor) including a master address code associated with the master switch, wherein transmitter 110' transmits the

activation signal including the master address code upon depression of the master switch and receiver unit 120', which includes the master address stored in decoder 126' (i.e., a microprocessor) activates bleeper 130's and lamp 132' upon receiver 122' receiving the master address code (as called for in claim 21); and (2) the target address codes and the master address code are transmitted by transmitter 110' at a single frequency (as called for in claim 22).

In an analogous art, as explained in the previous rejection of claim 12, Hedrick teaches activating switches 22 and master activation switch 76, as shown in Figs. 1 and 4, forming a transmitter unit. As called for in claim 21, per Hedrick, activation of master activation switch 76 causes RF transmitter 70 to transmit a plurality of codes 72, which are understood to be master address codes, to response units 14 (see Col. 3, lines 20-27 and 36-42). Upon receiving the master address codes, wherein each response unit 14 has a master address code 72 stored in code program 64, each response unit 14 activates its beeper 66 (see Col. 3, lines 3-13, 20-27, and 36-39). As called for in claim 22, Hedrick discloses that the master address codes and target address codes are transmitted by RF transmitter 70 at a single frequency (see Col. 3, lines 18-22).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lander and Horiyama's locator system as taught by Hedrick because (1) a transmitter unit 100' further having a master activation switch 76 and a master address code associated with the master switch stored in encoder 108', wherein transmitter 110' transmits the activation signal including the master address code upon depression of the master switch and (2) receiver unit 120', which includes the master address stored in decoder 126' (i.e., a microprocessor) activating bleeper 130's and lamp 132' upon receiver 122' receiving the master address code (as called for in claim 21) enable a user to look for all objects connected to receiver units 120' by depressing a single switch, thereby making the system convenient and

easy to use (see Hedrick, Col. 3, lines 20-24 and 36-42). In addition, transmitting the target address codes and the master address code at a single frequency (as called for in claim 22) enables transmitter unit 100' to transmit target address codes and the master address code via the same transmitter.

17. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Horiyama et al. (US 6,502,949) and Hedrick (US 5,680,105) as applied to claim 22 above, and further in view of Crabtree et al. (US 6,788,199).

Regarding claim 23, Lander, Horiyama, and Hedrick fail to teach the master address code stored in the remote locator unit for each of the adapters is the same.

In an analogous art, Crabtree teaches a locator system, as shown in Fig. 1, comprising (a) locator unit 10 (i.e., a transmitter unit) and (b) a plurality of transceivers 11 (i.e., remote locator units) (see Col. 8, lines 27-58 and Col. 22, lines 48-49). As shown in Figs. 4 and 6, Crabtree's locator unit 10 comprises (1) cursor control 43 and search button 44 (i.e., object locating switches) (see Col. 15, lines 41-54); (2) RF transmitter 61 that produces a plurality of uniquely coded activation signals (Col. 8, lines 39-52; Col. 15, lines 54-60; Col. 16, lines 63-67; and Col. 17, lines 1-6); and (3) microprocessor 60 that is connected between user inputs 43, 44 and transmitter 61 and that controls the transmission of the plurality of uniquely coded activation signals, wherein microprocessor 60 includes a memory storing a plurality of address codes and causes transmitter 61 to transmit an activation signal including the address code selected by a user (see Col. 16, lines 54-67 and Col. 17, lines 1-6). As shown in Figs 3A and 3B, Crabtree's transceiver 11 includes (1) RF receiver 30 that receives an activation signal from locator unit 10 (see Col. 10, lines 58-65); and (2) microprocessor 32 that is coupled to RF receiver 30 and has a memory storing a programmable address, wherein microprocessor 32 activates transmitter 33

(i.e., an indicator device) upon RF receiver 30 receiving an activation signal having an address code that corresponds to the stored address code (see Col. 9, lines 45-52; Col. 10, lines 28-35, and 58-67; and Col. 11, lines 1-13). As called for in claim 23, Crabtree teaches that locator unit 10 and transceiver units 11 store a temporary session ID such that locator unit 10 tracks all transceiver units 11 having the session ID by transmitting the session ID, which causes each transceiver unit 11 having the session ID to activate its transmitter 33 (see Col. 10, lines 40-57; Col. 22, lines 48-67; and Col. 23, lines 1-6, 20-26, 36-43, and 49-67).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lander, Horiyama, and Hedrick's locator system as taught by Crabtree because having transmitter unit 100' transmit one master address code instead of a plurality of address codes upon depression of master activation switch 76 and having each receiving unit 120' store the same master address code and activate bleeper 130's and lamp 132' upon receiver 122' receiving the master address code require less time to poll receiver units 120' than having transmitter unit 100' transmit a plurality of address codes upon depression of master activation switch 76 (see Crabtree, Col. 22, lines 59-65).

18. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lander (US 4,476,469) in view of Horiyama et al. (US 6,502,949) as applied to claim 18 above, and further in view of Rabanne et al. (US 6,989,748).

Regarding claim 26, Lander and Horiyama are silent on receiver 122' and decoder 126', which is a microprocessor, receiving electrical power from battery pack 31.

In an analogous art, Rabanne teaches a tracking system 110, as shown in Fig. 2, comprising (a) parent unit 126 (i.e., transmitter unit) and (b) a plurality of child units 122 (see Col. 5, lines 18-28). Per Rabanne, parent unit 126 includes (1) controls 128 (i.e., object locating

switches) that selectively controls a plurality of child units 122 (see Col. 6, lines 13-22); (2) communicating device 142 that produces a plurality of uniquely coded activation signals 138 (see Col. 5, lines 31-34 and Col. 7, lines 22-26); and (3) processor 146 having a memory that stores the addresses of the child units 122 such that communicating device 142 transmits an activation signal including the address of a child unit 122 selected by a user via controls 128 (see Col. 5, lines 37-49; Col. 6, lines 13-22; and Col. 7, lines 15-26). Rabanne further teaches that child unit 122 includes (1) communicating device 130 that receives signals 138 transmitted by parent unit 126 (see Col. 5, lines 29-31 and Col. 7, lines 22-26); and (2) control 174 coupled to communicating device 130 that includes a memory storing an address and that activates alarm 106 when communicating device 130 receiving a control signal 138 having an address that corresponds to the stored address (see Col. 6, lines 41-42 and Col. 7, lines 22-26). As called for in claim 26, Rabanne teaches that child unit 122 is integrally formed with a removable battery pack 12 such that child unit 22's components, including microcontroller 604 and RF circuitry 624, receive electrical power from the battery (see Fig. 8; Col. 4, lines 50-67; Col. 5, lines 1-17; and Col. 10, lines 16-58).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lander and Horiyama's locator system as taught by Rabanne because receiver 122' and decoder 126', which is a microprocessor, integrated with a removable battery pack and receiving electrical power from battery pack 31 provide a tracking feature to an existing electronic device without requiring any modification to the electronic device (see Rabanne, Col. 4, lines 65-67 and Col. 5, lines 1-17).

19. Claims 28-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melbourne (US 6,774,787) in view of Hedrick (US 5,680, 105).

Referring to claims 28 and 34, Melbourne teaches a locator system, as shown in Fig. 1, comprises a plurality of locator units, wherein each locator unit functions as (a) a transmitter unit and (b) a remote locator unit (see Col. 3, lines 61-67 and Col. 4, lines 1-16, 22-63). As shown in Fig. 4, each locator unit comprises (1) a six-actuator key matrix 86 (i.e., a plurality of object locating switches) (see Col. 5, lines 3-12 and Col. 6, lines 24-40 and 60-61); (2) radio transmitter 90 that produces a plurality of uniquely coded search signals (i.e., activation signals) (see Col. 5, lines 3-12; Col. 6, lines 65-67; and Col. 7, lines 1-10); (3) controller 84, which is coupled between key matrix 86 and transmitter 90 and connected to receiver 92, that controls transmission of the plurality of coded search signals, has a memory storing each identity (i.e., a plurality of target address codes) associated with each of key matrix 86's keys and its own identity, causes radio transmitter 90 to transmit a search signal including the identity associated with the key depressed on key matrix 86, and activates piezoelectric sounding device 98 and LED 100 upon receiver 92 receiving the locator unit's own identity (see Col. 4, lines 22-67; Col. 5, lines 3-12 and 23-45; Col. 6, lines 15-21 and 40-67; Col. 7, lines 1-34; Col. 8, lines 62-67; and Col. 9, lines 1-10); (4) receiver 92 that receives the search signals including locator unit identities (see Col. 4, lines 43-55; Col. 7, lines 10-34; and Col. 8, lines 62-66). Melbourne, however, fails to teach (1) each locator unit's key matrix 86 further comprising a master switch, each controller 84's memory storing a master address code that is associated with a master switch in addition to the locator unit's own identity and the identities of the other locator units (as called for in claim 21); and (2) each locator unit activating its piezoelectric sounding device 98 and LED 100 upon reception of the master address code (as called for in claim 34).

In an analogous art, as explained in the previous rejection of claims 12 and 21-22, Hedrick teaches activating switches 22 and master activation switch 76, as shown in Figs. 1 and

4, forming a transmitter unit. Per, Hedrick, activation of master activation switch 76 causes RF transmitter 70 to transmit a plurality of codes 72, which are stored in a memory and are understood to be master address codes associated with master activation switch 76, to response units 14 (see Col. 3, lines 20-27 and 36-42), as called for in claim 28. Upon receiving the master address codes, wherein each response unit 14 has a master address code 72 stored in code program 64, each response unit 14 activates its beeper 66 (see Col. 3, lines 3-13, 20-27, and 36-39), as called for in claim 34.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Melbourne's locator system as taught by Hedrick because (1) each locator unit's key matrix 86 further comprising a master switch and each controller 84's memory storing a master address code that is associated with a master switch (as called for in claim 21); and (2) each locator unit activating its piezoelectric sounding device 98 and LED 100 upon reception of the master address code (as called for in claim 34) enable a user to locate all missing locator units by pressing a master switch of another locator unit instead of pressing a plurality of keys on key matrix 86, thereby making Melbourne's locator system easy to use (see Hedrick, Col. 3, lines 20-24 and 36-42).

Regarding claim 29, Melbourne, as modified by Hedrick, teaches that the locator unit identities and master address code are transmitted by radio transmitter 90 at a single frequency (see Melbourne, Col. 7, lines 1-5; and Hedrick, Col.3, lines 17-22).

Regarding claim 30, Melbourne and Hedrick disclose that the single frequency is at 315 MHz (see Melbourne, Col. 7, lines 1-5 and 10-14).

Regarding claims 31 and 32, Melbourne's locator unit, as modified by Hedrick, has piezoelectric sounding device 98 (i.e., an audible indicator device, as called for in claim 31) and

LED 100 (i.e., a visible indicator device, as called for in claim 32) (see Col. 4, lines 52-55; Col. 6, lines 15-21; Col. 7, lines 28-31; and Col. 9, lines 7-10).

20. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melbourne (US 6,774,787) in view of Hedrick (US 5,680, 105) as applied to claim 28 above, and further in view of Crabtree et al. (US 6,788,199).

Regarding claim 33, Melbourne and Hedrick fail to teach the master address code stored in each locator unit is the same.

In an analogous art, as explained in the previous rejection of claim 23, Crabtree teaches that locator unit 10 and transceiver units 11 store a temporary session ID such that locator unit 10 tracks all transceiver units 11 having the session ID by transmitting the session ID, which causes each transceiver unit 11 having the session ID to activate its transmitter 33 (see Col. 10, lines 40-57; Col. 22, lines 48-67; and Col. 23, lines 1-6, 20-26, 36-43, and 49-67).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Melbourne and Hedrick's locator system as taught by Crabtree because having a locator unit transmit one master address code instead of a plurality of address codes upon depression of master activation switch 76 and having each locator unit store the same master address code and activate piezoelectric sounding device 98 and LED 100 upon receiver 92 receiving the master address code require less time to poll locator units than having a locator unit transmit a plurality of address codes upon depression of master activation switch 76 (see Crabtree, Col. 22, lines 59-65).

21. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melbourne (US 6,774,787) in view of Hedrick (US 5,680, 105) as applied to claim 32 above, and further in view of Calhoun et al. (US 6,850,151).

Regarding claim 35, Melbourne and Hedrick's locator unit lacks an activation switch.

In analogous art, as explained in the previous rejection of claims 15 and 16, as shown in Figs. 8 and 9, Calhoun teaches that receiver unit 13 includes power switch 54 (i.e., an activation button) that enables microprocessor 52 to activate visible alert 50 and audible alert 60 upon receipt of the address code for receiver unit 13.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Melbourne and Hedrick's locator system as taught by Calhoun because a locator unit having power switch 54 (i.e., an activation switch) enables a user to turn off a locator unit when its not in use, thereby conserving power.

22. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melbourne (US 6,774,787) in view of Hedrick (US 5,680, 105) as applied to claim 28 above, and further in view of Bender (US 6,147,602).

Regarding claim 36, Melbourne and Hedrick are silent on incorporating locator unit into the object to be located such that the locator unit and the object are inseparable.

In an analogous art, as explained in the previous rejection of claims 3, 6, and 7, Bender further discloses directly incorporating the receiver unit into an object, particularly a piece of luggage (see Col. 2, lines 13-17 and 54-57 and Col. 3, lines 19-26). In addition, Bender suggests incorporating the receiving unit into other objects (see Col. 1, lines 7-8 and 64-67; Col. 2, line 1; and Col. 6, lines 17-21).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Melbourne and Hedrick's locator system as taught by Bender because the chances of a locator unit falling off or being accidentally removed from the object to which it is attached are eliminated by directly incorporating a locator unit into an

object such that the locator unit and the object are inseparable, thereby improving the effectiveness of the system.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Irvin (US 6,297,737) teaches an object locating system, wherein the locating tag includes a reset switch that terminates activation of an indicator device upon depression.
- Fugere-Ramirez (US 6,573,832) teaches a locating device that sends a radio signal to one of a plurality of button-shaped receivers that emits and audible sound upon receiving an appropriate radio signal.
- Klitsgaard et al. (US 6,624,752) teach an object detection system and integrating detectors in objects, such as expensive tool, skies, safety vests, etc.
- Boman et al. (US 7,034,684) teach a personal item monitoring system using radio frequency identification (RFID) devices and installing the RFID devices into the personal item to be monitored.
- Pucci et al. (US 7,064,663) teach an RF object locator system, wherein the finder has a memory storing a plurality of unique tag identification codes and is used to locate tools, pill bottles, etc.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clara Yang whose telephone number is (571) 272-3062. The examiner can normally be reached on Tuesdays, 1:00-2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (571) 272-7308. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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CY
9 December 2006

Clara Yang